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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,780	08/24/2001	Rong C. Fang	069116.0180	9034

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EXAMINER	
MEW, KEVIN D	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/935,780	FANG ET AL.	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-8, 17-20* is/are allowed.

6)☒ Claim(s) *9-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Response to Amendment

1. Applicant's Arguments/Remarks filed on 3/8/2006 with respect to claims 1-20 have been considered. Claims 1-20 are currently pending.

2. Acknowledgement is made of the amended claims 17-20 regarding the claim objections of claims 17-20 set forth in the previous Office Action. The corrections are acceptable and the claim objections have been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Izawa et al. (USP 5,796,734).

Regarding claims 9 and 10, Izawa discloses an apparatus (**SMDS System**, see col. 1, lines 44-55) to perform a method for transporting a computer-readable data structure (see Figs 2 and 4), comprising:

encapsulating data in a packet, wherein the packet (**encapsulating payload data in L2 unit**, see Fig. 10) comprises a first header section and a first payload section associated with the first header section (**each L2 unit comprises a header section, a payload section in the BOM**

portion of the unit, and the first header section is associated with first payload section, see Fig. 10), a second header section, and a second payload section associated with the second header section (**each L2 unit also comprises a second header section, a second payload section in the EOM portion of the unit, and the second header section is associated with second payload section**, see Fig. 10), and a trailer section (**a trailer section of the L2 unit**, see Fig. 10), and wherein the first header section comprises a First Service Type field (**the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type**, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4) and the second header section comprises a Second Service Type field (**the second header of a second L2-PDU comprises an access control field to indicate a downward transmission channel; note that downward transmission channel is considered as a second service type**, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the first payload section contains a first portion of the data (**first L2-PDU contains a first payload section**, see Figs. 2 and 5) and the second payload section contains a second portion of the data (**second L2-PDU contains a second payload section**, see col. 3, lines 61-67 and col. 4, lines 1-4 and Figs. 2 and 5);

setting, responsive to the first portion of the data, the First Service Type field (**setting the access control field to indicate it is upward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4);

setting, responsive to the second portion of the data, the Second Service Type field (**setting the access control field to indicate it is downward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4);

transporting the packet through a communication system (**transporting protocol data units in a communication system**, see col. 6, lines 46-60),

extracting from the transported packet, responsive to the First Service Type field, the first portion of the data from the first payload section (**extracting the payload portion of the L2-PDUs in accordance with the upward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4); and

extracting from the transported packet, responsive to the Second Service Type field, the second portion of the data from the second payload section (**extracting the payload portion of the L2-PDUs in accordance with the downward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4).

Regarding claims 11 and 12, Izawa discloses a computer-readable data structure of a computer data signal, encoded on a computer-readable medium (see Figs 2 and 4), for organizing data for transport, the structure comprising:

a packet (**L2 unit**, see Fig. 10) comprises a first header section and a first payload section associated with the first header section (**each L2 unit comprises a header section, a payload section in the BOM portion of the unit, and the first header section is associated with first payload section**, see Fig. 10), a second header section, and a second payload section associated with the second header section (**each L2 unit also comprises a second header section, a second payload section in the EOM portion of the unit, and the second header section is associated with second payload section**, see Fig. 10), and a trailer section (**a trailer section of the L2 unit, see Fig. 10), and wherein the first header section comprises a First Service**

Type field (the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the contents of the First Service Type field are responsive to the contents of the first payload section **(when access control field indicates upward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for upward transmission**, see col. 3, lines 61-67 and col. 4, lines 1-4), and the contents of the Second Service Type field are responsive to the contents of the second payload section (**when access control field indicates downward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for downward transmission**, see col. 3, lines 61-67 and col. 4, lines 1-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa in view of Gupta et al. (USP 5,673,265).

Regarding claim 13, Izawa discloses an apparatus to perform a method for transporting data (**SMDS System for transporting data**, see col. 1, lines 44-55 and Figs. 10), comprising:

encapsulating data in a frame, wherein the frame (**encapsulating payload data in L2 unit**, see Fig. 10) comprises a header section and a payload section, (**each L2 unit comprises a header section, a payload section in the BOM portion of the unit, and the first header section is associated with first payload section**, see Fig. 10) and a trailer section (**a trailer section of the L2 unit**, see Fig. 10).

transporting the packet through a communication system (**transporting protocol data units in a communication system**, see col. 6, lines 46-60),

extracting from the transported frame the data from the the payload section (**extracting the payload portion of the L2-PDUs in accordance with the upward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4);

Izawa does not disclose the header section comprises a Forward Tag Congestion Notification field and a Backward Tag Congestion Notification field, the Forward Tag Congestion Notification field providing an indication that congestion is being experienced in a transport direction of the frame, the Backward Tag Congestion Notification field providing an indication that congestion is being experienced in an opposite transport direction of the frame.

However, Gupta discloses a scalable multimedia network (SMN) data packet format that comprises a Forward Congestion FC bit and a Backward Congestion BC bit and setting these bits (col. 11, lines 55-67, col. 12, lines 1-37 and Fig. 10A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the L2 packet format of Izawa with the teaching of Gupta in employing a Forward Congestion bit and a Backward Congestion bit in a packet format such that

the header section of Izawa will comprise a Forward Tag Congestion Notification field and a Backward Tag Congestion Notification field.

The motivation to do so is to detect congestion for packets traveling in the same and reverse direction as the packet.

Response to Arguments

5. Applicant's arguments filed on 3/8/2006 with respect to claims 9-12 have been fully considered but they are not persuasive. Applicant's arguments filed regarding claims 13-16 have also been considered but are moot in view of new ground of rejection.

Regarding claims 9-12, applicant argued on page 2, first paragraph that the Izawa reference fails to disclose an individual packet data unit, either a L-PDU or a L2-PDU, that encapsulates all of a first header section, a first payload section, a second header section, a second payload section, and a trailer section, the examiner respectfully disagrees. Applicant's specification on page 19, lines 7-8 cited in applicant's remarks, and Fig. 6 of the drawing regarding this part of the claimed invention have been considered.

The claimed limitations in claim 9 recited encapsulating data in a packet, wherein the packet *comprises* a first header section and a first payload section associated with the first header section, a second header section and a second payload section associated with the second header section, and a trailer section. However, applicant's attention to Fig. 10 of the Izawa reference, which clearly shows the L2 (AAL-SAR) unit is comprised of a header section, a payload section in the BOM portion of the unit, and is further comprised of a header section, a payload section and a trailer section in the FOM portion. This clearly anticipates the claimed limitations recited

in claim 9. As a result, the Izawa reference does disclose two header sections and two payload sections as provided by the claimed invention in claims 9-12. Therefore, claims 9-12 stand rejected under 35 U.S.C. 102(b) as being anticipated by Izawa et al., and claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa in view of Gupta et al. (USP 5,673,265).

Allowable Subject Matter

6. Claims 1-8, 17-20 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 1, a method for transporting data, comprising:

the Final Payload Count Valid field, the Final Payload Count Valid field indicating whether or not the payload section includes a Final Payload Count field, the Final Payload Count field indicating an amount of data placed in the payload section.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seema S. Rao 5/15/06

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